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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/701,238 | 11/04/2003 | Kishore Karighattam | H1312 | 5261 |
| 29393 7590 10/03/2008 ESCHWEILER & ASSOCIATES, LLC NATIONAL CITY BANK BUILDING 629 EUCLID AVE., SUITE 1000 CLEVELAND, OH 44114 | | | | |
| EXAMINER | | | | |
| FORD, GRANT M | | | | |
| ART UNIT | | PAPER NUMBER | | |
| 2141 | | | | |
| NOTIFICATION DATE | | DELIVERY MODE | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docketing@eschweilerlaw.com

Office Action Summary

Application No.

10/701,238

Applicant(s)

KARIGHATTAM ET AL.

Examiner

GRANT FORD

Art Unit

2141

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 8-18 and 22-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-18 is/are allowed.
- 6) ☐ Claim(s) 1-2, 8-12 is/are rejected.
- 7) ☒ Claim(s) 22-24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S5108)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 6/9/2008, with respect to the prior art of Connor have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection of claims 1-2 and 8-12 is made in view of the prior art of Fox, as outlined below.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 11-12 recite the limitation "the a predetermined size ". There is insufficient antecedent basis for this limitation in the claim. The Examiner suggests deleting "the" in the instant recitation to meet antecedent basis requirements.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-2 and 8-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Fox (US 6,185,438).

- a. As per claim 1, Fox discloses a method comprising:
 - obtaining a data packet from host software, wherein the data packet is located in an array of virtual buffers that each map to one or more physical buffers in a system memory (Col. 2 lines 49-60, Col. 7 lines 16-27 and 40-51);
 - analyzing the virtual buffers and the physical buffers associated with the data packet (Col 7 lines 40-51); and
 - selectively copying either selected ones of the virtual buffers or selected ones of the physical buffers into a coalesced physical buffers based on the analysis (Col 6 line 45 through Col 7 line 51).
- b. As per claim 2, Fox discloses assembling a coalesced array from the coalesced physical buffer and one or more respective non-selected virtual buffers or physical buffers (Col 6 line 45 through Col 7 line 51).
- c. As per claim 8, Fox discloses wherein selectively copying selected ones of the one or more virtual or physical buffers comprises iteratively analyzing in order, each virtual or physical buffer associated with the data packet such that the composite size of the selected ones is less than a predetermined size (Col 7 lines 28-59).
- d. As per claim 9, Fox discloses obtaining a size for a current virtual or physical buffer, computing a composite size as a function of the current virtual or physical buffer size and a composite virtual or physical buffer length, and on the composite virtual or physical buffer size being less than a predetermined size, selecting

the current virtual or physical buffer and adding the current virtual or physical size to the composite virtual or physical buffer length (Col 6 line 45 through Col 7 line 51).

e. As per claim 10, Fox discloses determining a predetermined size according to a desired overall system performance, and using the predetermined size in identifying the selected ones of the virtual or physical buffers (Col 7 lines 39-50, Col 8 lines 25-34).

f. As per claim 11, Fox discloses determining a predetermined size according to a desired network throughput, and using the predetermined size in identifying the selected ones of the virtual or physical buffers (Col 7 lines 39-50, Col 8 lines 25-34).

g. As per claim 12, Fox discloses determining a predetermined size according to a desired overall system performance, network throughput, and system resource utilization, and using the predetermined size in identifying the selected ones of the virtual or physical buffers (Col 7 lines 39-50, Col 8 lines 25-34).

Allowable Subject Matter

6. Claims 13-18 are allowed.
7. Claims 22-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is an examiner's statement of reasons for allowance: In interpreting the claims, in light of the specification and the claims amended in the Applicant's response dated 6/9/2008, the Examiner finds the claimed invention to be patentably distinct from the prior art of record.

9. The prior art of record fails to teach either alone or in combination the limitation of: ***on the array of virtual buffers having a size greater than the array of associated physical buffers, selectively coalescing an initial number of buffers of the array of virtual buffers into a coalesced buffer; and on the array of virtual buffers not having a size greater than the array of associated physical buffers, selectively coalescing an initial number of buffers of the array of physical buffers into the coalesced buffer***, as claimed in independent claim 13.

10. **Fox (US 6,185,438)** teaches a communication processor which uses a group of hardware buffer descriptors and a virtual array of buffer descriptors to control communication ports of the communication processor. The communication processor swaps data between the hardware buffer descriptors and the virtual array of buffer descriptors to provide just in time storage of control and status information used to transmit and receive data. However, Fox fails to teach the determination of a size of an array of virtual buffers as being greater than or less than the size of an array of associated physical buffers, and selectively coalescing selected ones of the arrays of virtual or physical buffers based upon the comparison between the size of the array of

virtual buffers, and the size of physical buffers, as claimed in independent claim 13

(Fox, Abstract, Col 2 lines 30-60, Col 6 line 45 through Col 7 line 59, Col 8 lines 25-59).

11. Claims 14-18 are allowed by virtue of their dependency upon allowed independent claim 13.

12. Newly added dependent claim 22 contains allowable subject matter for the reasons outlined with respect to independent claim 13 above. Claims 22-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to GRANT FORD whose telephone number is (571)272-8630. The examiner can normally be reached on 8-5:30 Mon-Thurs alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (571)272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/G. F./
Examiner, Art Unit 2141

/Andrew Caldwell/
Supervisory Patent Examiner, Art
Unit 2142

